The "Highest Possible Ambition" on climate change mitigation as a legal standard

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THE 'HIGHEST POSSIBLE AMBITION' ON CLIMATE CHANGE MITIGATION AS A LEGAL STANDARD

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Abstract The Parties to the Paris Agreement have committed to communicate successive 'nationally determined contributions' (NDCs) to the global response to climate change. Each NDC is expected to reflect the Party's 'highest possible ambition' (HPA) on the mitigation of climate change. This article envisages the possibility of taking HPA seriously: that is, of approaching it as an effective legal standard. It shows that, in some circumstances, the HPA standard can help to assess whether a State has complied with due diligence obligations on climate change mitigation.

Keywords: public international law, climate change, Paris Agreement, ambition, due diligence obligation, highest possible ambition, progression, fair shares.

I. INTRODUCTION

States have long recognized the need to mitigate climate change by limiting and reducing sources of greenhouse gas (GHG) emissions and enhancing sinks and reservoirs of GHGs. The United Nations Framework Convention on Climate Change (UNFCCC) defines the objective of preventing a 'dangerous' interference with the climate system.[1] In 2015, the Parties proclaimed a long-term goal of holding the global average temperature 'well below' 2°C and close to 1.5°C above pre-industrial levels.[2]

To pursue these objectives, States have mainly agreed on vague obligations of due diligence. Thus, Parties' 'pivotal'[3] commitment under the UNFCCC

[1] United Nations Framework Convention on Climate Change (adopted 9 May 1992, entered into force 21 March 1994) 1771 UNTS 107 (UNFCCC) art 2.

[2] Paris Agreement (12 December 2015) (2016) 55 ILM 740 (PA) art 2(1)(a); Decision 10/CP.21, 'The 2013–2015 review' (29 January 2016) UN Doc FCCC/CP/2015/10/Add.2, 23, para 4.

[3] F Yamin and J Depledge, *The International Climate Change Regime: A Guide to Rules, Institutions and Procedures* (CUP 2004) 95.

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describes the core of an obligation to exercise due diligence:[4] it requires Parties to 'formulate, implement … and regularly update national … programmes containing measures to mitigate climate change'.[5] Similar due diligence obligations have arisen under other sources of international (eg customary) and domestic law.[6]

Long and intense negotiations have sought to clarify the content of these due diligence obligations, but they have not fully succeeded. The Kyoto Protocol and its Doha Amendment defined quantified emission limitation and reduction commitments (QELRCs) applicable to some developed country Parties from 2008 to 2020,[7] but these commitments only reflected what each of these Parties had proposed in the course of the negotiations.[8] The Paris Agreement takes a clearer bottom-up approach: each Party is to prepare and communicate its 'nationally determined contribution' (NDC) every five years and to take appropriate measures to achieve the objective of this NDC.[9]

While States have agreed on global mitigation objectives, such as the temperature goals of the Paris Agreement, the treaty does not require them to act consistently with these objectives.[10] To the contrary, the Parties to the Paris Agreement have repeatedly emphasized the 'nationally determined nature' of NDCs,[11] and 'the determination of the level of ambition tends to be seen as a purely political question' rather than a legal one.[12] As a whole, Parties have acknowledged with 'serious concern' that current NDCs do not reflect a level of ambition likely to achieve the 1.5 or 2°C goals,[13] which

[4] B Mayer, *International Law Obligations on Climate Change Mitigation* (OUP 2022) 41–2.

[5] UNFCCC (n 1) art 4(1)(b). See also art 4(2)(a).

[6] See Section II.A.1.

[7] Kyoto Protocol to the United Nations Framework Convention on Climate Change (adopted 11 December 1997, entered into force 16 February 2005) 2303 UNTS 162, art 3(1) and Annex B; Doha Amendment to the Kyoto Protocol (adopted 8 December 2012, entered into force 31 December 2020) C.N.718.2012.TREATIES-XXVII.7.c, art 1.

[8] J Depledge, 'The "Top-Down" Kyoto Protocol? Exploring Caricature and Misrepresentation in Literature on Global Climate Change Governance' (2022) 22 IntlEnvtlAgreements: PolL&Econ 673, 676–84.

[9] PA (n 2) arts 4(2), 4(9). See also B Mayer, 'International Law Obligations Arising in Relation to Nationally Determined Contributions' (2018) 7(2) TEL 251.

[10] See B Mayer, 'Temperature Targets and State Obligations on the Mitigation of Climate Change' (2021) 33(3) JEL 585.

[11] See Decision 5/CMA.1, 'Modalities and procedures for the operation and use of a public registry referred to in Article 4, paragraph 12, of the Paris Agreement' (19 March 2019) UN Doc FCCC/PA/CMA/2018/3/Add.1, 14, Annex, para 1(b); Decision 6/CMA.3, 'Common time frames for nationally determined contributions referred to in Article 4, paragraph 10, of the Paris Agreement' (19 March 2019) UN Doc FCCC/PA/CMA/2018/3/Add.1, 17, para 1; Decision 4/CMA.4, 'Sharm el-Sheikh mitigation ambition and implementation work programme' (17 March 2023) UN Doc FCCC/PA/CMA/2022/10/Add.1, 22, recital 14 and para 2 (reaffirming 'the nationally determined nature' of NDCs).

[12] LA Duvic-Paoli, 'International Law: A Discipline of Ambition' (2023) 36 LJIL 233, 245.

[13] eg Decision 1/CMA.4, 'Sharm el-Sheikh Implementation Plan' (17 March 2023) UN Doc FCCC/PA/CMA/2022/10/Add.1, 2, para 20. See also UNFCCC, 'Nationally determined contributions under the Paris Agreement: Synthesis report by the secretariat' (26 October 2022) UN Doc FCCC/PA/CMA/2022/4; UN Environment Programme, *Emissions Gap Report 2022: The Closing Window* (UN Environment Programme 2022).

suggests that Parties are not generally making commitments in line with these goals.

It remains nonetheless that the national determination of Parties' mitigation action is not entirely discretionary: it is constrained by legal norms. The Paris Agreement imposes requirements on the form[14] and timing[15] of NDCs and Article 4(3) defines more substantive standards relating to the level of ambition that should be reflected in NDCs by suggesting that each NDC will 'reflect [the Party's] highest possible ambition' (HPA) and 'represent a progression' beyond the Party's previous NDC.[16] These substantive standards are not the object of a specific legal obligation under the Paris Agreement, but they inform the interpretation of States' due diligence obligations arising under the UNFCCC and other sources of international and domestic law.

This article assesses the possibility of approaching the HPA standard as an effective legal standard. While this standard may seem vague and ineffective, the article shows that, on some occasions, it can inform the interpretation of due diligence obligations on climate change mitigation. HPA can be implemented as a standard of internal consistency, relying on a Party's own determination of what level of ambition is 'possible' in the light of its national circumstances. Beyond this, the HPA standard can also enable political or even judicial processes that shed light on a Party's ability to take more ambitious action.

Surprisingly little has been written on the HPA standard so far. Instead, much of the climate law literature on national ambition under the Paris Agreement has focused on an assessment of Parties' 'fair shares' in global efforts to achieve the temperature goals.[17] The fair-share project faces important difficulties, including the lack of grounds to envision 'fair share' as a legal standard.[18] As an alternative to the fair-share approach, this article is part of a project aimed at assessing national ambition in line with textual provisions of the Paris Agreement, by focusing on the legal standards that apply to the national determination of NDCs.[19]

The next section situates HPA as a standard likely to inform the application of obligations of due diligence on climate change mitigation. Section III

[14] PA (n 2) arts 4(4), 4(8).

[15] ibid, arts 4(9), 4(10).

[16] ibid, art 4(3). See also art 4(11), implying a standard of non-regression in NDC updates.

[17] See eg L Maxwell, S Mead and D van Berkel, 'Standards for Adjudicating the Next Generation of Urgenda-Style Climate Cases' (2022) 13 JHRE 35; V Ritz, 'Towards a Methodology for Specifying States' Mitigation Obligations in Line with the Equity Principle and Best Available Science' (2023) 12 TEL 95; L Rajamani et al, 'National "Fair Shares" in Reducing Greenhouse Gas Emissions within the Principled Framework of International Environmental Law' (2021) 21(8) ClimPoly 983; G Liston, 'Enhancing the Efficacy of Climate Change Litigation: How to Resolve the "Fair Share Question" in the Context of International Human Rights Law' (2020) 9(2) CILJ 241.

[18] See Section II.B.1.

[19] See also B Mayer, 'Progression Requirements Applicable to State Action on Climate Change Mitigation under Nationally Determined Contributions' (2023) 23(3) IntlEnvtlAgreements: PolL&Econ 293.

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conceptualizes HPA, first, by defining 'ambition' and the condition of its 'possibility', and then, through a discussion of HPA's relation to the concepts of cost–benefit analysis, differentiation and progression. Section IV considers the implementation of the HPA standard by identifying relevant processes and plausible assessment methodologies.

II. DUE DILIGENCE OBLIGATIONS ON CLIMATE CHANGE MITIGATION

This section provides the contextual foundations for the analysis subsequently developed in this article. It shows that States' substantive obligations on climate change mitigation are mainly obligations of due diligence. While due diligence obligations on climate change mitigation are often interpreted through an assessment of a State's 'fair shares' in global mitigation action, HPA provides an attractive alternative due to States' acceptance of this standard.

A. Characterizing Climate Change Mitigation Obligations

Substantive obligations on climate change mitigation can generally be described as obligations of conduct (in civil-law terminology) or due diligence obligations (in common-law terminology): they are obligations of States 'to deploy adequate means, to exercise best possible efforts, to do the utmost', in order to mitigate climate change.[20] As noted above, Parties' central commitment under the UNFCCC describes the main procedural implications of an obligation of due diligence.[21]

Beyond climate treaties, judges and scholars have identified due diligence obligations on climate change mitigation under customary international law,[22] multilateral environmental agreements,[23] human rights law[24] and tort

[20] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011) ITLOS Reports 2011, 10, para 110. See also PM Dupuy, 'Reviewing the Difficulties of Codification: On Ago's Classification of Obligations of Means and Obligations of Result in Relation to State Responsibility' (1999) 10 EJIL 371. See generally B Mayer, 'Obligations of Conduct in the International Law on Climate Change: A Defence' (2018) 27(2) RECIEL 130, 132–5.

[21] See references at nn 4–5.

[22] eg Mayer (n 4) ch 3; B Mayer, 'Climate Change Mitigation as an Obligation under Customary International Law' (2023) 48 YaleJIntlL 105; C Voigt, 'The Power of the Paris Agreement in International Climate Litigation' (2023) 32(2) RECIEL 237; Case 19/00135 *Urgenda v the Netherlands* ECLI:NL:HR:2019:2006, para 5.7.5.

[23] eg SW Lee and LB Bautista, 'Part XII of the United Nations Convention on the Law of the Sea and the Duty to Mitigate Against Climate Change: Making Out a Claim, Causation, and Related Issues' (2018) 45 EcologyLQ 129; M Doelle, 'Climate Change and the Use of the Dispute Settlement Regime of the Law of the Sea Convention' (2006) 37(3–4) OceanDev&IntlL 319; WCG Burns, 'A Voice for the Fish? Climate Change Litigation and Potential Causes of Action for Impacts under the United Nations Fish Stocks Agreement' (2008) 11 JIWLP 30.

[24] eg B Mayer, 'Climate Change Mitigation as an Obligation Under Human Rights Treaties?' (2021) 115(3) AJIL 409; JH Knox, 'Climate Change and Human Rights Law' (2009) 50 VaJIntlL 163; *Chiara Sacchi et al v Argentina* Comm No 104/2019 (11 November 2021) UN Doc CRC/C/88/D/104/2019; *Neubauer v Germany*, Federal Administrative Court, 24 March 2021, 1 BvR 2656/18; *Urgenda v the Netherlands* (n 22).

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law.[25] On the international plane, in particular, States have largely accepted the existence of this obligation under international law in recent years. In 2021, the United Nations (UN) General Assembly took note of Guidelines adopted by the International Law Commission that identify an obligation of States 'to protect the atmosphere by exercising due diligence'.[26] In 2023, the same Assembly adopted by consensus the request for an advisory opinion of the International Court of Justice (ICJ) on the obligations on States to mitigate climate change, in which they directed the Court to 'hav[e] particular regard to … the duty of due diligence'.[27] In ongoing advisory proceedings on climate change before the International Tribunal for the Law of the Sea (ITLOS), multiple States—including developed ones that have long had reservations on the existence of obligations on climate change beyond the climate regime—have argued that States have a due diligence obligation to mitigate climate change in application of Part XII of the UN Convention on the Law of the Sea and of customary international law.[28]

Notwithstanding whether such obligations are identified under national or international law, their interpretation will probably be shaped by their normative context, in particular international legal developments.[29] Climate treaties are of obvious relevance. The Kyoto Protocol and the Paris Agreement have sought to spell out the content of the UNFCCC's due diligence obligations on climate change mitigation. QELRCs, under the former, and NDCs, under the latter, establish national targets on climate change mitigation, the implementation of which contributes to the fulfilment of States' due diligence obligations on climate change mitigation.[30] Even when Parties are invited to determine their own national ambition on climate change mitigation—formerly, during the negotiation of the Kyoto Protocol,

[25] eg DA Farber, 'Tort Law in the Era of Climate Change, Katrina, and 9/11: Exploring Liability for Extraordinary Risks Lecture' (2008) 43(3) ValULRev 1075; Case C/09/456689/HA ZA 13-1396 *Urgenda v the Netherlands* ECLI:NL:RBDHA:2015:7196 (while the Court of Appeal gave precedence to a human rights argument, it did not exclude the relevance of tort law); Case C/09/571932/HA ZA 19-379 *Milieudefensie v Royal Dutch Shell* ECLI:NL:RBDHA:2021:5337.

[26] UN General Assembly Res 76/112 (17 December 2021) UN Doc A/RES/76/112, para 4 and Annex, guideline 3.

[27] UN General Assembly Res 77/276 (4 April 2023) UN Doc A/RES/77/276.

[28] See the submissions to ITLOS in *Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law*, in particular those submitted on 15 and 16 June 2023 by the European Union (para 40); France (para 98); Korea (para 15); Latvia (para 18); the Netherlands (paras 4.2, 4.8); New Zealand (para 59); Canada (para 62(5)); Singapore (para 38); and the United Kingdom (para 65). For all submissions, see ITLOS, *Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law (Request for Advisory Opinion submitted to the Tribunal)* <https://www.itlos.org/en/main/cases/list-of-cases/request-for-an-advisory-opinion-submitted-by-the-commission-of-small-island-states-on-climate-change-and-international-law-request-for-advisory-opinion-submitted-to-the-tribunal/>.

[29] eg *Urgenda v the Netherlands* (n 22) paras 5.7.5–6; *Earthlife Africa Johannesburg v Minister of Environmental Affairs and Others* [2017] 2 All SA 519 (GP) para 83.

[30] B Mayer, 'Construing International Climate Change Law as a Compliance Regime' (2018) 7 TEL 115.

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and, presently, when preparing their NDC—they should do so consistently with applicable rules of international law.[31] In reality, however, neither the Kyoto Protocol nor the Paris Agreement establishes any mechanism to ensure that the mitigation target volunteered by each State is consistent with its due diligence obligation. As such, there is no reason to assume that a State complies with its due diligence obligation on climate change mitigation simply because it implements the QELRC and NDC it has agreed upon.[32]

The Parties to the UNFCCC have long recognized the need for them, collectively, to enhance national action on climate change mitigation beyond the specific commitments they volunteered under the Kyoto Protocol and the Paris Agreement.[33] Since the early 2010s, they have noted the need for more 'ambitious emission reductions',[34] in particular from developed country Parties,[35] in order to 'close' the 'ambition gap'[36] between global objectives and national action.[37] In particular, decisions have called for 'the highest possible mitigation efforts under the convention by all Parties'.[38]

It is in this context that States adopted Article 4(3) of the Paris Agreement, which suggests that each Party's successive NDC should 'reflect its *highest possible ambition*, reflecting its common but differentiated responsibilities

[31] See Vienna Convention on the Law of Treaties (adopted 23 May 1969, entered into force 27 January 1980) 1155 UNTS 331 (VCLT) art 31(3)(c); International Law Commission, 'Conclusions of the Work of the Study Group on the Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law' (12 April 2006) UN Doc A/CN.4/L.682, para 4.

[32] But see the submission by Singapore to ITLOS in *Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law* (16 June 2023) para 38, suggesting that 'States' compliance with their commitments under the UNFCCC regime would indicate that they have met their due diligence obligations in respect of greenhouse gas emissions under Article 194 of UNCLOS'. This view appeared isolated from the views expressed in other submissions cited in n 28.

[33] See eg Decision 1/CP.13, 'Bali Action Plan' (14 March 2008) UN Doc FCCC/CP/2007/6/Add.1, 3, recitals 1, 4.

[34] Decision 1/CP.16, 'The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention' (15 March 2011) UN Doc FCCC/CP/2010/7/Add.1, 2, para 2(a).

[35] Decision 2/CP.17, 'Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention' (15 March 2012) UN Doc FCCC/CP/2011/9/Add.1, 4, recital 6 before para 5.

[36] Decision 1/CP.18, 'Agreed outcome pursuant to the Bali Action Plan' (28 February 2013) UN Doc FCCC/CP/2012/8/Add.1, 3, recital 2 above para 94.

[37] See Duvic-Paoli (n 12) 236.

[38] Decision 1/CP.19, 'Further advancing the Durban Platform' (31 January 2014) UN Doc FCCC/CP/2013/10/Add.1, 3, para 4; Decision 1/CP.20, 'Lima Call for Climate Action' (2 February 2015) UN Doc FCCC/CP/2014/10/Add.1, 2, para 18; Decision 1/CP.21, 'Adoption of the Paris Agreement' (29 January 2016) UN Doc FCCC/CP/2015/10/Add.1, 2, para 105(c). See also Decision 1/CP.17, 'Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action' (15 March 2012) UN Doc FCCC/CP/2011/9/Add.1, 2, para 7; Decision 2/CP.18, 'Advancing the Durban Platform' (28 February 2013) UN Doc FCCC/CP/2012/8/Add.1, 19, para 5; Decision 1/CMP.8, 'Amendment to the Kyoto Protocol pursuant to its Article 3, paragraph 9 (the Doha Amendment)' (28 February 2013) UN Doc FCCC/KP/CMP/2012/13/Add.1, 2, recital 11; Decision 1/CP.25, 'Chile Madrid Time for Action' (16 March 2020) UN Doc FCCC/CP/2019/13/Add.1, 26, para 10.

and respective capabilities, in the light of different national circumstances'.[39] In turn, NDCs' objectives are to guide the 'domestic mitigation measures' that Parties are to implement under the Paris Agreement and the UNFCCC.[40] The HPA standard is also reflected in the procedural requirement that an NDC includes information on how the Party 'considers that its NDC is fair and ambitious in the light of its national circumstances' and how it 'has addressed Article 4, paragraph 3'.[41] While the HPA standard applies mainly to mitigation action, Parties have also called for higher ambition on adaptation to climate change[42] and on the provision of support to mitigation and adaptation action in developing countries.[43] Similarly worded standards were applied in domestic law even before the adoption of the Paris Agreement, such as the 'maximum feasible' fuel economy level applicable to new road vehicles in the United States.[44]

B. Two Interpretative Approaches

Due diligence obligations on climate change mitigation require States to implement an 'adequate' level of efforts.[45] This requisite level of mitigation action can conceivably be identified in two alternative ways: either following a top-down determination of a State's fair share in global mitigation action, or through a bottom-up assessment of the State's capacity to mitigate climate change. The fair-share approach has thus far received the most attention but, as the following shows, it faces important obstacles, including the lack of legal basis. By contrast, by recognizing HPA at least as an expectation in relation to the communication of NDCs, the Paris Agreement gives some support to another, bottom-up approach, whose potential remains largely untapped in the climate law literature.

[39] PA (n 2) art 4(3) (emphasis added). See also Decision 1/CMA.2, 'Chile Madrid Time for Action' (16 March 2020) UN Doc FCCC/PA/CMA/2019/6/Add.1, 2, para 7.

[40] PA (n 2) art 4(2); UNFCCC (n 1) art 4(1)(b). See Mayer (n 9) 262.

[41] Decision 4/CMA.1, 'Further guidance in relation to the mitigation section of decision 1/CP.21' (19 March 2019) UN Doc FCCC/PA/CMA/2018/3/Add.1, 6, Annex I, para 6(c). See also Decision 1/CP.20 (n 38) para 14 (on intended NDCs); Decision 1/CP.21 (n 38) para 27 (in optional terms).

[42] Decision 1/CP.24, 'Preparations for the implementation of the Paris Agreement and the first session of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement' (19 March 2019) UN Doc FCCC/CP/2018/10/Add.1, 2, para 14; Decision 1/CP.25 (n 38) para 10; Decision 4/CMP.17, 'Technology Executive Committee – modalities and procedures' (15 March 2012) UN Doc FCCC/CP/2011/9/Add.1, 67, para 4; Decision 18/CMA.4, 'Matters relating to the Adaptation Fund' (17 March 2023) UN Doc FCCC/PA/CMA/2022/10/Add.3, 21, para 4.

[43] PA (n 2) art 4(5); Decision 4/CMA.1 (n 41) recital 3; Decision 1/CMA.3, 'Glasgow Climate Pact' (8 March 2022) UN Doc FCCC/PA/CMA/2021/10/Add.1, 2, para 39; Decision 1/CMA.4 (n 13) para 32.

[44] See 49 U.S. Code § 32902 – Average fuel economy standards, para (a); *Center for Biological Diversity v National Highway Traffic Safety Administration*, 538 F.3d 1172 (9th Cir. 2008).

[45] See text at n 20.

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1. The fair-share approach

Due diligence obligations on climate change mitigation have frequently been interpreted and applied in the light of collective objectives, in particular the temperature goals of the Paris Agreement. Scholars[46] and non-governmental organizations (NGOs)[47] have sought to develop methodologies to determine what precisely each State—or even each corporation—should do as part of global efforts that would achieve these goals; these methodologies could be used to interpret due diligence obligations under domestic or international law. The Supreme Court of the Netherlands has already interpreted the European Convention on Human Rights, in the light of customary international law, as requiring the State to act consistently with the 2°C goal, which the Court construed as requiring a 25 per cent reduction in national GHG emissions by 2020, compared with 1990.[48] Further, the District Court of the Hague has applied Dutch tort law in the light of the temperature goals of the Paris Agreement and ordered a corporation, Royal Dutch Shell, to decrease its carbon dioxide emissions by 45 per cent by 2030, compared with 2019.[49] Outside the Netherlands, however, multiple courts have dismissed similar cases, in particular on the ground that defining such targets exceeded the scope of judicial functions.[50]

The fair-share approach faces important practical difficulties. For one, the temperature goals are poorly defined (eg 1.5 *or* 2°C, on what time horizon, compared with what 'pre-industrial' baseline, with what level of certainty?).[51] Furthermore, States have not agreed on a formula to determine how global efforts should be distributed among themselves—let alone how they should be imposed onto multinational corporations.[52] Principles such as 'common but differentiated responsibilities and respective capabilities' (CBDRRC) and 'equity' do not settle protracted political disagreement on the relevance and weight of various criteria related to historical responsibility, financial capacity and geographical circumstances, among

[46] eg Rajamani et al (n 17); Liston (n 17); Ritz (n 17).

[47] eg 'Fair share' (*Climate Action Tracker*) <https://perma.cc/75Z9-P8DM> (for States); 'SBTi Criteria and Recommendations for Near-Term Targets' (Science Based Targets 2023) 8, <https://perma.cc/H5J3-UF2W> (for corporations).

[48] *Urgenda v the Netherlands* (n 22). See discussion in B Mayer, 'Interpreting States' General Obligations on Climate Change Mitigation: A Methodological Review' (2019) 28(2) RECIEL 107.

[49] *Milieudefensie v Royal Dutch Shell* (n 25).

[50] *Minister for the Environment v Sharma*, [2022] FCAFC 35 (Federal Court of Australia) paras 7, 342; *Sagoonick v State*, 503 P.3d 777, 782 (Alaska, 28 January 2022) paras 35–41; *Aji P v State*, 16 Wash App 2d 177, 480 P.3d 438, para 458 (Washington, 8 February 2021); *R (Plan B Earth) v Prime Minister* [2021] EWHC 3469 (Admin) [2021] All ER (D) 92, para 37; *Smith v Fonterra Co-operative Group Limited*, [2021] NZCA 552, CA128/2020 (New Zealand Court of Appeal) para 27; *La Rose v Canada*, 2020 FC 1008 (27 October 2020) para 41; *Juliana v United States* [2020] 947 F.3d 1159 (9th Cir. 2020) paras 30–32. See B Mayer, 'Prompting Climate Change Mitigation Through Litigation' (2023) 72 ICLQ 233, 236–43.

[51] Mayer (n 10) 590–3.

[52] ibid 593–5.

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other things.[53] As a result, any assessment of a State's fair share is bound to be highly contentious, as it would depend almost entirely on the assessor's value-based judgments.[54]

Yet a more fundamental issue with the fair-share approach is its premise that States have accepted an obligation to act consistently with global mitigation objectives.[55] Nothing in the text of the Paris Agreement indicates that NDCs are required or even expected to be consistent with the temperature goals or any other global mitigation objective. The drafters of the Paris Agreement considered—but rejected—an alternative treaty architecture whereby a 'global emission budget' consistent with the temperature goals would have been 'divided among all Parties' in accordance with rules that the treaty would have defined.[56]

Objections could invoke the object and purpose of the treaty or its context, including subsequent practice, to suggest that NDCs must reflect the Party's fair share despite the absence of any explicit treaty provision. Yet it is uncertain that this interpretation would be consistent with the law on treaty interpretation. In the plain meaning of Article 31 of the Vienna Convention on the Law of Treaties, neither the context of a treaty nor its object and purpose can justify an interpretation of the treaty at odds with its textual provisions.[57] Consistently, Richard Gardiner notes that interpreting a treaty in the light of its object and purpose does not normally 'allow … the general purpose of the treaty to override its text'.[58] No textual provision can be interpreted as requiring 'nationally determined' contributions as being, in fact, determined by the object and purpose of the treaty. States do not have a legal obligation to achieve every treaty objective that they agree upon.

It may also be suggested that an obligation to act consistently with the temperature goals emerged subsequently to the adoption of the Paris Agreement. Yet there does not appear to be any evidence of a subsequent agreement between the Parties requiring them to implement their fair share in global efforts. Admittedly, the Meeting of the Parties to the Paris Agreement

[53] See eg D Bodansky, J Brunnée and L Rajamani, *International Climate Change Law* (OUP 2017) 27, noting that 'there is very little agreement on [the principle's] rationale, core content, and application in particular situations'; S Biniaz, 'Comma but Differentiated Responsibilities: Punctuation and 30 Other Ways Negotiators Have Resolved Issues in the International Climate Change Regime' (2016) 6 MichJEnvtl&AdminL 37.

[54] B Mayer, 'The Judicial Assessment of States' Action on Climate Change Mitigation' (2022) 35(4) LJIL 801, 822. But see Ritz (n 17) 95. Ritz assumes that the 'the best available approach' to determining fair shares would necessarily be good enough to be implemented by a court. What Ritz considers the best available approach (that developed by Climate Action Tracker) relies essentially on averaging conclusions drawn based on different assumptions, which might appear as a middle-ground fallacy.

[55] See Mayer (n 10); A Zahar, 'Collective Obligation and Individual Ambition in the Paris Agreement' (2020) 9 TEL 165.

[56] Decision 1/CP.20 (n 38) Annex, 9, 'option 4'.

[57] VCLT (n 31) art 31(1).

[58] S Gardiner, *Treaty Interpretation* (2nd edn, OUP 2015) 211. See also eg *Land, Island and Maritime Frontier Dispute (El Salvador/Honduras: Nicaragua intervening)* (Judgment, Merits) [1992] ICJ Rep 351, paras 375–376.

decided that each NDC would contain information on how the Party considers it to be 'fair and ambitious' and to 'contribute … towards' the temperature goals,[59] and the International Law Commission found that such 'decisions adopted within the framework of a Conference of States Parties' may embody a subsequent agreement.[60] However, this agreement on a procedural obligation for Parties to justify the fairness of an NDC provides scant evidence of the existence of a substantive obligation for NDCs to represent the Party's fair share.

Alternatively, a fair-share obligation might conceivably arise from State practice, whether as subsequent treaty practice, customary law, or in application of general norms of international or domestic law (eg tort or human rights law).[61] Here again, however, there appears to be no clear evidence of such general practice. To the contrary, the existence of a wide 'ambition gap' seems to indicate that States do *not* generally act consistently with the temperature goals.[62]

2. *The HPA approach*

A more classical approach to interpreting a State's due diligence obligations starts by assessing the State's circumstances—what this State could realistically do—thus focusing primarily on what is possible rather than what is desirable.[63] Such a bottom-up approach to due diligence is especially appropriate when an obligation relates to an open-ended objective, such as climate change mitigation, where the priority should be to do as much as possible rather than to achieve any predetermined outcome. Despite an oft-heard argument, temperature goals are a political goal rather than a safe limit determined by scientists;[64] and any incremental GHG emission exacerbates climate harms.[65]

[59] Decision 4/CMA.1 (n 41) Annex, paras 6(a), 7(b). Compliance with this decision is required under PA (n 2) art 4(8).

[60] International Law Commission, Draft Conclusions on Subsequent Agreements and Subsequent Practice in relation to the Interpretation of Treaties, UNYBILC, vol II (2018) Part Two, 25, conclusion 11.

[61] See eg *North Sea Continental Shelf (Germany v Denmark)* (Judgment, Merits) [1969] ICJ Rep 3, 43, para 74 (on customary international law); VCLT (n 31) art 31(3) (on treaty interpretation); *Varnava and Others v Turkey* App No 16064/90 (ECtHR, 18 September 2009) para 185 (on human rights law); B Mayer, 'The Duty of Care of Fossil-Fuel Producers for Climate Change Mitigation: *Milieudefensie v. Royal Dutch Shell* District Court of The Hague (The Netherlands)' (2022) 11(2) TEL 407, 416–17 (on tort law); P Minnerop, 'European Consensus as Integrative Doctrine of Treaty Interpretation: Joining Climate Science and International Law under the European Convention on Human Rights' (2023) 40 BerkeleyJIntlL 206 (on European human rights law).

[62] Mayer (n 10) 598–600; Mayer (n 22) 142–3; Mayer (n 61) 416–17.

[63] See n 20 above.

[64] See eg R Knutti et al, 'A Scientific Critique of the Two-Degree Climate Change Target' (2016) 9 NatGeosci 13.

[65] Intergovernmental Panel on Climate Change, 'Summary for Policymakers' in V Masson-Delmotte et al (eds), *Climate Change 2021: The Physical Science Basis* (CUP 2021) 3, 28 (para D.1.1).

Consistently, climate treaties have promoted this bottom-up approach to the determination of national mitigation action, either by requiring each Party to prepare its own mitigation 'programme' (UNFCCC)[66] and 'contribution' (Paris Agreement),[67] or by allowing each Party to decide its own treaty commitment in the course of international negotiations (Kyoto Protocol).[68] The inclusion of the HPA standard in the Paris Agreement confirms that a State's climate action should be assessed primarily by reference to national circumstances, with global mitigation goals playing at most a secondary role.[69]

The HPA standard has received scant attention in the climate-law literature.[70] Lavanya Rajamani and colleagues remarked that HPA 'shape[s] the due diligence standard' applicable to climate change mitigation; yet, they did not elaborate further.[71] Christina Voigt and Felipe Ferreira praised HPA as 'a potent and powerful tool',[72] but they suggested that this standard requires Parties to take 'adequate … measures … to … achieve the objective of the Paris Agreement'.[73] Thus, in effect, they assimilated the HPA standard with the fair-share approach. Similarly, when the authors of a communication to the UN Human Rights Committee suggested that several States had 'fail[ed] to prevent foreseeable human rights harms caused by climate change by reducing [their] emissions at the "highest possible ambition"',[74] they were referring to an analysis of national 'fair shares'.[75] However, assimilating HPA with the fair-share approach betrays the ordinary meaning of the terms: HPA points first and foremost to what the State *can* do, not to what *needs to be done* to achieve the objective of the Paris Agreement.

Other authors, critical of a top-down approach to HPA, do not see any viable alternative. Alexander Zahar, for instance, proclaimed that 'whichever ambition a State decides for itself is its highest possible ambition'.[76] Others offered more nuanced views. In particular, Duvic-Paoli noted that HPA is initially 'self-determined',[77] and Eckard Rehbinder suggested that there is 'a lack of clear

[66] UNFCCC (n 1) art 4(1)(b).

[67] PA (n 2) art 4(2).

[68] See Depledge (n 8) 676–84. See also Kyoto Protocol (n 7) art 3(1).

[69] On the role of global mitigation objectives in the HPA approach, see Section III.B.1.

[70] See eg H Winkler, 'Mitigation (Article 4)' in D Klein et al (eds), *The Paris Agreement on Climate Change: Analysis and Commentary* (OUP 2017) 139, 148 (hardly ever mentioning the HPA standard).

[71] Rajamani et al (n 17) 994. See also eg S Maljean-Dubois, 'The Paris Agreement: A New Step in the Gradual Evolution of Differential Treatment in the Climate Regime?' (2016) 25 RECIEL 151, 157; Duvic-Paoli (n 12) 242.

[72] C Voigt and F Ferreira, '"Dynamic Differentiation": The Principles of CBDR-RC, Progression and Highest Possible Ambition in the Paris Agreement' (2016) 5(2) TEL 285, 295.

[73] ibid 296. Voigt and Ferreira do not explain how they come to conclude that 'highest possible ambition' implies consistency with the objective of the Paris Agreement. See also C Voigt, 'The Paris Agreement: What is the Standard of Conduct for Parties?' (2016) 18 QuestIntlL 17, 25, 28.

[74] Communication to the Committee on the Rights of the Child in *Chiara Sacchi v Argentina* (23 September 2019) para 20 <https://perma.cc/Y467-THYE>.

[75] ibid, paras 21, 214 (referring in particular to a fair-share analysis by Climate Action Tracker).

[76] Zahar (n 55) 169.

[77] Duvic-Paoli (n 12) 245.

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ideas about [HPA's] meaning'.[78] Yet, as Rehbinder added, the fact that HPA is initially determined by States when preparing their NDC does not necessarily mean that HPA rests '*exclusively* … on free self-judgment by State Parties'.[79] The Intergovernmental Panel on Climate Change noted that HPA 'could be read to imply a due diligence standard'.[80]

Voigt justly noted that HPA 'can be seen as a standard of behaviour, a reflection of due diligence'.[81] Political and judicial processes taking place on both the domestic and international planes could conceivably influence or control the national determination of NDCs, in particular based on interpretations of the HPA standard.

As a matter of treaty interpretation, the HPA standard is to be construed, under the principle of effectiveness, with 'preference for an interpretation which gives a term some meaning rather than none'.[82] Article 4(3) does not create an obligation on its own (as it is introduced with the auxiliary 'will'), but it does reflect and reinforce an expectation—or standard—that can inform the interpretation of other norms.[83] To the extent that HPA can be understood as implying a relatively effective standard, this interpretation should therefore be preferred to one leaving HPA's determination entirely to each State's discretion. Consequently, as Rehbinder points out, HPA should be approached as far as possible as 'an objective yardstick for assessing and justifying the quality of NDCs', with the implication that NDCs could be 'open to comments and criticism for lack of sufficient ambition'.[84]

Two difficulties present themselves when relying on HPA to interpret a State's mitigation obligation, but neither of these difficulties is greater than the obstacles to a fair-share approach. First, HPA is undeniably ill defined. Applying the HPA standard does require far-reaching value-based judgments, although no more so than applying the fair-share approach.[85] Second, HPA is not expressly defined as a legal obligation in the Paris Agreement. Yet, by using the auxiliary 'will', Article 4(3) of the Paris Agreement reflects a 'strong expectation'[86] that NDCs reflect the Party's HPA. By contrast, the Paris Agreement does not indicate any similar expectation that NDCs would reflect Parties' fair shares. The expectation that NDCs reflect the Party's HPA, to the

[78] E Rehbinder, 'Ambition as a Legal Concept in the Paris Agreement and Climate Litigation: Some Reflections' (2022) 52 EP&L 377, 380.
[79] ibid.
[80] A Patts et al, 'International Cooperation' in PR Shukla et al (eds), *Climate Change 2022: Mitigation of Climate Change* (CUP 2022) 1466.
[81] Voigt (n 22) 241.
[82] Gardiner (n 58) 179 (principle of effectiveness). This rule of treaty interpretation is implied by the requirement of good faith in treaty interpretation. See also VCLT (n 31) art 31(3).
[83] See L Rajamani, 'The 2015 Paris Agreement: Interplay Between Hard, Soft and Non-Obligations' (2016) 28 JEL 337, 344, 355–6.
[84] Rehbinder (n 78) 380.
[85] See Section IV.
[86] L Rajamani and J Brunnée, 'The Legality of Downgrading Nationally Determined Contributions under the Paris Agreement: Lessons from the US Disengagement' (2017) 29 JEL 537, 544.

extent that it is upheld by State practice, can be a benchmark to assess States' compliance with their diligence obligations on climate change mitigation.

III. CONCEPTUALIZATION OF HPA

This section seeks a better understanding of what a State's HPA is. First, it defines the main elements of HPA, namely, the 'possible' and 'ambition'. Second, it considers how HPA relates to the concepts of cost–benefit analysis, differentiation and progression.

A. Definition

1. The 'possible'

Due diligence obligations are frequently described in hyperbolic terms: as requirements to do one's 'best effort', one's 'utmost'[87] or 'all in one's power'[88]—to 'take all measures at [one's] disposal'.[89] Of course, no due diligence obligation requires a person to use literally *all* its resources to pursue a unique goal. A State has many due diligence obligations relating to different goals: not only climate change mitigation, but also human rights protection and ecological preservation, among other things. Inevitably, each of these goals needs to be weighed with other priorities.[90] Due diligence only requires the implementation of the measures that are appropriate in the circumstances. As the International Law Association (ILA) Study Group on Due Diligence in International Law concluded, it is 'a standard of reasonableness … that seeks to take account of the consequences of wrongful conduct and the extent to which such consequences could feasibly have been avoided'.[91]

It is in this context that HPA's condition of 'possibility' has to be interpreted. An NDC's highest 'possible' ambition cannot be understood as requiring the highest level of ambition '[t]hat is capable of being'.[92] Rather, the word

[87] eg *Responsibilities in the Area* (n 20) para 110; A Peters, H Krieger and L Kreuzer, 'Due Diligence in the International Order: Dissecting the Leitmotif of Current Accountability Debates' in H Krieger, A Peters and L Kreuzer (eds), *Due Diligence in the International Legal Order* (OUP 2020) 5.

[88] Dupuy (n 20) 378.

[89] *LaGrand (Germany v United States of America)* (Judgment) [2001] ICJ Rep 466, para 111.

[90] A frequent assumption, in a political discourse in favour of climate action, is that one can mitigate climate change without undermining other (eg human rights and environmental) objectives at all. Yet there are, at times, direct conflicts (eg the ecological impact of hydroelectricity) and, more generally, a conflict in the attribution of scarce resources (eg public budget). A State cannot spend considerable resources promoting climate change mitigation without reducing the funding invested in pursuing other priorities, be they road safety, public health or public education. There would be no reason not to stop all GHG emissions today if it were not for the cost of doing so on the pursuance of other priorities.

[91] T Stephens and D French, 'ILA Study Group on Due Diligence in International Law: Second Report' (2016) 77 ILA Rep 1062, 1063.

[92] Oxford English Dictionary (3rd edn, 2006), 'possible', A.1.

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'possible', in this phrase, refers to the most that 'can … be done … *in given or assumed conditions or circumstances*'[93]—the most that a Party can *reasonably* intend to achieve in a given context. To make sense of the HPA standard, these conditions must be determined.

To do so, a useful analytical framework can be found in the 'six dimensions of feasibility' identified by the Intergovernmental Panel on Climate Change when assessing the feasibility of mitigation action.[94] Conditions of 'geophysical' and 'technological' feasibility are obviously relevant, but they are not sufficient to ensure that States balance their due diligence obligation on climate change mitigation with due diligence obligations relating to other priorities. Of greater relevance are 'environmental–ecological', 'economic', 'socio-cultural' and 'institutional' conditions of feasibility, which reflect the need to balance climate change mitigation with other legitimate priorities, some of which are themselves the object of due diligence obligations (eg human rights and environmental protection). States have agreed that financial, technology and capacity-building support would facilitate 'higher ambition' in developing countries,[95] precisely because such support would enhance these countries' technological, economic and institutional capabilities.

Yet, some conditions of socio-cultural and institutional feasibility raise particular issues, especially those relating to 'public acceptance' and 'political acceptance'.[96] Admittedly, measures fulfilling all other feasibility conditions may still face genuine social and political obstacles. However, recognizing political or public acceptance as relevant conditions of 'possibility' would allow self-fulfilling prophecies: it would allow a government to assert that its NDC represents the most that this government 'can' accept, or a protest movement (eg the French '*gilets jaunes*') to decide that proposed measures 'cannot' be accepted.

Ultimately, whether public and political acceptance are to be considered as conditions under the HPA standard relates to broader questions about the relation between climate action and democracy. There could be concern that voters might prioritize their own interests (eg national interests) over other policy objectives (eg interests of foreigners), thus downplaying the global benefits of a State's mitigation action. Swiss voters have rejected by referendum additional mitigation objectives that the federal government had

[93] ibid (emphasis added).

[94] A Al Khourdajie et al, 'Annex II: Definitions, Units and Conventions' in *Climate Change 2022* (n 80) 1837. This analytical framework can assist in determining the ordinary meanings of a term (the word 'possible') used in the Paris Agreement. See also, by analogy, *Center for Biological Diversity* (n 44) 1194, noting that '"maximum feasible" standards are to be determined in light of technological feasibility, economic practicability, the effect of other motor vehicle standards, and the need of the nation to conserve energy'.

[95] PA (n 2) art 4(5); Decision 4/CMA.1 (n 41) recital 3; Decision 1/CMA.3 (n 43) para 39.

[96] Al Khourdajie et al (n 94) 1837.

communicated in an NDC update,[97] forcing the government to renounce these additional objectives.[98]

Finding ways to ease the tension between climate action and democracy is beyond the scope of this article. Suffice it to note that deferring entirely to political and social acceptance in the interpretation of the HPA standard would make the HPA standard ineffective—HPA would, by definition, be whatever a national government or a State as a whole declares as the highest ambition it can accept. By analogy, a State cannot rely on the provisions of its internal law as justification for its failure to comply with international law,[99] since internal law—in much the same way as political acceptance—is ultimately what the State decides that it should be. Yet this does not necessarily exclude a limited role for conditions of public and political acceptance in assessing HPA, if only as a way to maintain well-functioning democratic institutions.

2. *'Ambition'*

Duvic-Paoli notes that, despite its prevalence in climate law, the concept of ambition remains 'poorly understood'.[100] At the most basic level, a distinction needs to be drawn between two alternative approaches to ambition. On the one hand, ambition can be conceptualized in terms of expected outcomes, reflected for instance in a rate of reduction in national emissions (whether in absolute terms, per capita, or in economic intensity). On the other hand, ambition can be approached as a level of effort, relating to the stringency of the measures taken and the significance of the resulting economic and social burden.

These two conceptions of ambition on climate change mitigation have different practical implications. This is because the outcome of a State's climate change mitigation policy depends not only on that State's level of effort, but also on a range of extraneous factors that influence the evolution of the State's GHG emissions. At times, a Party could anticipate a greater mitigation outcome thanks to technology development or far-reaching social-distancing measures, among other things. At other times, the Party's mitigation policy may face headwinds, for instance if an increase in the price of natural gas hinders a national policy to cut coal consumption, or if revised accounting methodologies make it more difficult for the Party to achieve an emission-reduction target expressed by reference to national emissions in a base year.[101]

[97] 'Votation No 644: Tableau récapitulatif' (*Chancellerie federale ChF*, 13 May 2021) <https://perma.cc/M9DP-ZV3L>. See also Switzerland, First NDC, Update (9 December 2020) 1.

[98] Switzerland, First NDC, Update (17 December 2021) 1.

[99] International Law Commission, *Draft Articles on Responsibility of States for Internationally Wrongful Acts* (November 2001) Supplement No 10A/56/10, art 32; VCLT (n 31) art 27.

[100] Duvic-Paoli (n 12) 233.

[101] See Brazil, First NDC, Update (7 April 2022); Human Rights Watch, 'COP26: Don't be Fooled by Bolsonaro's Pledges: Brazil Still Lacks Credible Plan to Save Rainforest as Amazon Crisis Persists' (2 February 2021) <https://perma.cc/KM3T-GLM5>.

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Ambition for the purpose of Article 4(3) is more convincingly understood as referring to a level of effort—as a due diligence (or 'best efforts') standard. Yet, it is difficult to measure climate ambition as a level of effort for lack of relevant quantitative indicators. Carbon prices may appear as an attractive metric of ambition, yet these prices can rarely be identified: few national mitigation measures impose a direct price on GHG emissions,[102] indirect taxes may be justified in part by other political objectives[103] and many States rely on more traditional command-and-control regulation that does not set any explicit price at all. On the other hand, 'implicit' carbon prices are difficult to estimate,[104] if only because they require a determination of the role that climate change mitigation has played in the adoption of policies that may be justified in the light of co-benefits. Moreover, a carbon price does not adequately reflect what an economic incentive to avoiding GHG emissions really means in the economic, social, political or cultural circumstances of a particular State. For instance, the same nominal carbon price would impose a higher social burden on populations with a lower purchase power.

Due to these practical difficulties, HPA is more likely to be expressed in terms of expected outcome, for instance as an emission reduction target, rather than as a level of effort. Expected outcome is a relatively convenient way to assess national action on climate change mitigation, building in particular on national GHG emission data. But while reliance on expected outcome may be inevitable when discussing a State's HPA, it should be kept in mind that this is only an imperfect proxy for assessing what really matters: namely, the level of effort that the State is making.

B. Relation to Other Concepts

This second subsection considers how the HPA standard relates to three other concepts pertinent to interpreting States' due diligence obligations on climate change mitigation. First, it is shown that HPA inevitably involves some form of cost–benefit analysis. Second, the HPA standard contributes to a refinement of other principles concerned with differentiation among States in climate law: in particular, HPA confirms a focus on capacity-based differentiation criteria, rather than responsibility-based criteria, for what concerns national mitigation action. Third, the HPA standard may appear as incompatible with the progression standard—how could a State be expected to progress beyond what is already its *highest possible* ambition?—unless

[102] C Ramstein, G Dominioni and S Ettehad, *State and Trends of Carbon Pricing 2019* (World Bank 2019).

[103] For instance, a tax on road vehicle fuels may be raised as a way to reduce local air pollution or traffic. As such, it may not truly reflect the State's ambition on climate change mitigation.

[104] See eg C Marcantonini and AD Ellerman, 'The Implicit Carbon Price of Renewable Energy Incentives in Germany' (2015) 36(4) EnergyJ 205, 206–7.

HPA is approached as a level of effort and progression in the light of expected cumulative outcomes.

1. *HPA as a cost–benefit analysis*

Due diligence, ITLOS noted, 'is a variable concept'.[105] What a due diligence obligation involves depends on the risk that this obligation seeks to reduce and the costs of reducing this risk.[106] In other words, what diligence is due to reduce a risk depends on the cost and the benefit of diligence (where 'cost' and 'benefit' are used in a broad, figurative sense: many costs and benefits are not economic in nature).[107] These observations also apply to climate change mitigation: whether a State is doing enough to mitigate climate change cannot be assessed in abstraction from the constraints and opportunities facing mitigation action in that State. Consistently, what constitutes a State's HPA probably depends on both the costs and the benefits of mitigation action in that State.

First, applying the HPA standard involves an assessment of the costs of the State's mitigation action. This is because if the cost of mitigation action is unbearable it could not be deemed to be 'possible'. Consistently, Parties have recognized that international support could allow developing countries to enhance their ambition.[108] However, even the most developed countries with the greatest technological and economic capabilities face constraints: under the conditions of feasibility implied by the HPA standard, they may be able to achieve rapid cuts in their GHG emissions, but not an immediate cessation. An interpretation of the HPA standard failing to take such costs into consideration would conflict with the States' other due diligence obligations.

Second, applying the HPA standard also involves an assessment of the benefits of the State's mitigation action. This proposition is perhaps less obvious. Admittedly, it does not flow clearly from the text of Article 4(3) of the Paris Agreement: 'HPA' seems to require every Party to do its utmost to mitigate climate change notwithstanding the benefits of such action. Yet this provision is to be interpreted in the light of the object and purpose of the treaty—in particular its mitigation objective—and in its context.[109]

[105] *Responsibilities in the Area* (n 20) para 117.
[106] See Stephens and French (n 91) 1063.
[107] While cost–benefit analyses have frequently been criticized, the object of these criticisms is not the rather commonsensical notion that upsides and downsides are to be compared when making a decision, but rather some particular ways of implementing the comparison, in particular a market-based valuation of these costs and benefits. See discussion in RH Frank, 'Why Is Cost–Benefit Analysis so Controversial?' (2000) 29 JLegStud 913, 929; WD Nordhaus, 'Climate Change: The Ultimate Challenge for Economics' (2019) 109(6) AmEcRev 1991, 2000.
[108] See n 95 above.
[109] VCLT (n 31) art 31(1). See also PA (n 2) recital 4; Decision 1/CMA.3 (n 43) para 3; Decision 1/CMA.4 (n 13) para 21.

In particular, this latter proposition is supported by the fact that the Paris Agreement contains no sunset clause: each Party must communicate an NDC every five years, in principle, forever.[110] Yet States would not be expected to keep making the same level of effort in a future in which anthropogenic climate change was well under control. Inevitably, what represents a Party's HPA depends on the urgency of mitigation action at the relevant time, as assessed by States themselves. Thus, less would be expected from each State if States were collectively on course to achieving or exceeding the temperature goals, or if States had agreed on a less stringent temperature goal (eg 2.5°C). On the other hand, more is expected from them at present, as a consequence of their decision to include a 1.5°C goal in the Paris Agreement, their repeated expression of a 'serious concern' with the ambition gap, and their emphasis of the urgency of enhancing mitigation action.

An implication of this analysis is that the global temperature goals are relevant to interpreting Parties' due diligence obligations. By contrast to the fair-share approach, however, the temperature goals are only one part of the equation: these goals influence but do not determine a State's HPA. In the present analysis, the full implementation of the HPA standard by all States would not necessarily ensure the achievement of the temperature goals, and it could possibly lead States to exceed these goals.[111]

Overall, this analysis suggests that the HPA standard needs to be interpreted as expressing, in hyperbolic terms, the need for an *adequate* level of ambition, as determined by taking into account both the costs and the benefits of mitigation action. It remains, however, that the comparison between these costs and benefits is challenging as they differ in scope and nature. The costs of a State's mitigation action unfold primarily within the State's own territory: they include, for instance, the economic cost of mitigation action for individuals and corporations subject to the State's jurisdiction and generally within its territory; the environmental impacts of various measures (eg hydroelectric or nuclear energy) taken by the State, which mostly unfold within the State's own territory; and the cost of opportunity for other policy objectives, which is more likely borne by individuals within the State's territory.[112] The benefits of a State's mitigation action, by contrast, are global in scope and often more abstract in nature. Among these benefits, the Paris Agreement highlights utilitarian goals such as food security,[113] ecological preservation[114] and sustainable development.[115]

[110] This is, unless the Party withdraws from the Paris Agreement or all Parties agree to modify or terminate the treaty. See PA (n 2) art 28; VCLT (n 31) arts 40, 57.

[111] See below, text at n 125.

[112] Some of these costs are recognized in climate treaties, at least by implication. See eg UNFCCC (n 1) arts 3(4), 4(8)(h); PA (n 2) recitals 10–11.

[113] PA (n 2) recital 9.

[114] ibid, recital 13.

[115] ibid, art 2(1).

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More specifically, a cost–benefit analysis of mitigation action faces three difficulties. First, many costs and benefits concern social and ecological interests that have no inherent economic value (eg no market price), and yet would need to be compared among themselves and with economic costs and benefits. Second, the costs and benefits of mitigation action unfold on different time scales. While the costs of mitigation action are often incurred rather quickly, the benefits (ie avoided climate impacts) extend over centuries or millennia. Yet there is no obvious or consensual way to compare long-term benefits with present costs. It is generally agreed that future costs and benefits are to be discounted when they are compared with present ones, but there is no agreement on the value of the discounting rate.[116] Third, while the costs of mitigation action tend to be relatively foreseeable, its benefits include the reduction of very small risks of cataclysmic outcomes (eg runaway climate scenarios and civilizational collapse). The valuation of such benefits is impeded by deep uncertainties about the likelihood of such cataclysmic outcomes and possible disagreements on the degree of aversion to such structural risks.[117] As a whole, the comparison that the HPA standard implies between the costs and benefits of mitigation action relies heavily on value-based decisions.

2. *HPA as a standard of differentiation*

States have long agreed that each Party's action on climate change mitigation may differ, in particular based on the CBDRRC principle.[118] Yet, as noted above, they have not agreed on all differentiation criteria, or on their respective weight.[119] To the extent that the HPA standard can assist in assessing each State's requisite level of mitigation action, it inevitably implies a particular approach to differentiation among States.

In this regard, the text of Article 4(3) of the Paris Agreement hints at seemingly contradictory demands. It suggests that each Party's successive NDCs are to reflect not only the Party's HPA, but also its CBDRRC and 'national circumstances'. CBDRRC could be understood as involving both responsibility-based criteria (eg historical emissions, per capita emissions and emission intensity) and capacity-based criteria (eg financial and technical capacities). By contrast, the HPA standard suggests a narrower conception of differentiation, focusing exclusively on capacity-related criteria: it requires every Party to do the best it can to mitigate climate change notwithstanding its responsibility for causing it.

[116] Nordhaus (n 107) 2004–5.
[117] WD Nordhaus, *The Climate Casino: Risk, Uncertainty, and Economics for a Warming World* (Yale University Press 2013) 141–3.
[118] UNFCCC (n 1) art 3(1).
[119] See above, text at n 53.

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There is no easy way to reconcile these two conceptions of differentiation. One could argue that NDCs should reflect *both* the Party's HPA and its CBDRRC, including responsibility-based criteria. Yet there are two issues with this interpretation. First, it seems inconsistent with the text of Article 4 (3), which indicates that CBDRRC is to be reflected in the Party's HPA, rather than directly in its NDC. Second, this interpretation would lead to the absurd conclusion that, when the CBDRRC principle indicates a higher threshold than the HPA, the Party would be required to do the impossible—it would have to aim for more than its HPA. Alternatively, one could suggest that NDCs need to reflect *either* the Party's HPA *or* its CBDRRC. However, this would imply that a Party with little responsibility for causing climate change, but significant capability to mitigate it, would not, in fact, be expected to reflect its HPA in its NDC—a conclusion that is entirely irreconcilable with the text of Article 4(3).

In practice, the difference between the HPA standard and the broader conception of differentiation suggested by the CBDRRC principle can be significant. For instance, a developing State with little historical or current emissions may be capable of taking effective measures to reduce future emissions, for instance if it benefits from strong economic growth.[120] An extreme case is Bhutan, a country with reportedly net negative GHG emissions (ie with more sinks of GHGs, such as trees, than emissions by sources, such as cars), which may nonetheless be able to take effective measures on climate change mitigation by further decreasing its emissions by sources and by further enhancing its sinks of GHGs.[121] HPA as a differentiation criterion is in principle more effective (as it requires every State to do as much as it can) but it could result in unfair outcomes by ignoring differentiated responsibilities.

State practice in relation to the implementation of the Paris Agreement largely confirms that HPA implies capacity-based differentiation. When prompted to justify how their NDCs reflected their HPA, Parties have predominantly referred to capacity-based criteria, for instance their 'mitigation opportunities',[122] 'level of development'[123] and 'needs for poverty reduction'.[124] For instance, Bhutan suggested that, because its NDC reflected its HPA, it represented 'more than its fair share of action and burden'[125]—that is, more than its responsibility.

Thus, the HPA standard seems to reflect a refinement of differentiation in climate law, including under the CBDRRC principle. Regarding mitigation

[120] See N Höhne et al, 'Assessing the Ambition of Post-2020 Climate Targets: A Comprehensive Framework' (2018) 18(4) ClimatePol 425, 429.

[121] Bhutan, First Biennial Update Report under the UNFCCC (29 December 2022) 46, 52, 65.

[122] Switzerland, First NDC, Update (17 December 2021) 14. See also UK, First NDC, Update (22 September 2022) 41; UK, First NDC, Update (12 December 2020) 27.

[123] Guinea-Bissau, First NDC, Update (12 October 2021) 27.

[124] Bhutan, Second NDC (24 June 2021) 24.

[125] ibid.

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action, this refinement involves a clearer focus on capacity rather than responsibility. This evolution is in line with the emphasis of developed States on capacity, rather than responsibility, when they differentiated among themselves (eg under the Kyoto Protocol or within the European Union).[126] It is also consistent with a pragmatic attempt at maximizing global efforts on climate change mitigation by making the best use of all capacities, consistently with the urgency of mitigating climate change acknowledged by States. On the other hand, responsibility-based criteria remain relevant to other aspects of climate action, in particular the provision of support.[127] Even though the States most responsible for causing climate change may have a limited capacity to mitigate climate change by themselves, they should support capacity to do so in other countries in line with responsibility-based differentiation criteria.

3. *HPA and progression*

Besides establishing the HPA standard, Article 4(3) of the Paris Agreement suggests that a Party's new NDC 'will represent a progression beyond the Party's then current' NDC.[128] This norm of progression is also reflected in Article 4(11), which allows a Party to adjust its NDC 'with a view to enhancing its level of ambition',[129] thus suggesting that regressive NDC updates may not ordinarily be permitted.[130]

It is difficult to make sense of the relation between the HPA standard and the standard of progression. At times, States have referred to progression as an indication that their NDCs fulfilled the HPA standard.[131] Yet, progression does little to demonstrate that the new NDC has reached the HPA standard. If anything, a Party's ability to progress seems to reveal that the Party's previous NDC did not truly reflect (or no longer reflected) its 'highest possible' ambition. Evolving national circumstances might lead a State to reassess its HPA, but there is no reason to assume that this reassessment will necessarily lead to progression: adverse changes in national circumstances might equally compel a State to reduce its HPA.[132]

[126] See eg Conference of the Parties, 'Adoption of a Protocol or Another Legal Instrument: Fulfilment of the Berlin Mandate', Revised text under negotiation (12 November 1997) UN Doc FCCC/CP/1997/2, 31 (Annex B); Decision 406/2009/EC of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020 [2009] OJ L140/136, recital 8; Regulation 2018/842 (EU) of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement [2018] OJ L156/26, recital 2. [127] See eg PA (n 2) art 9(1). [128] ibid, art 4(3). [129] ibid, art 4(11). [130] Rajamani and Brunnée (n 86).

[131] Saudi Arabia, First NDC, Update (23 October 2021) 2; Australia, First NDC, Update (28 October 2021) 13; Australia, First NDC, Update (16 June 2022) 11; United Arab Emirates, Second NDC, Update (14 September 2022) 10; Gambia, Second NDC (12 September 2021) 10; Grenada, Second NDC (1 December 2020) 14.

[132] See examples in text at n 101. But see Voigt (n 73) 25. Voigt notes that, under the HPA standard, each Party must 'do as well as it can'. Yet she also submits that 'a Party's changing

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This apparent contradiction can be avoided by interpreting the HPA standard in terms of effort and the progression standard in terms of cumulative outcomes. By continuously doing its best (HPA), a Party will come increasingly close to a model of development consistent with the mitigation objective of the Paris Agreement (progression). A necessary caveat is that progression may not be an entirely linear process—a Party may experience setbacks due to extraneous circumstances, say if a cold winter leads to an increase in energy demand, though such setbacks should be temporary. To account for this caveat, the progression standard should be interpreted in abstraction from the ebbs and flows of national circumstances, based perhaps on a multi-year trend rather than on annual emissions, and on the departure from a business-as-usual scenario rather than on national emissions data.[133]

IV. IMPLEMENTATION

This last section explores the prospects for the implementation of the HPA standard. First, the various judicial and political processes through which the HPA standard can be applied are identified. Second, the methodologies on which these processes can rely are discussed.

A. Processes

Various judicial and political processes could rely on the HPA standard to hold States or national governments to account for their action on climate change mitigation. In particular, the following considers the role that State declarations, multilateral processes, adjudication and domestic political processes could play.

1. State declarations

When communicating their NDCs, Parties have committed to provide 'the information necessary for clarity, transparency and understanding'.[134] The Meeting of the Parties to the Paris Agreement decided that, for Parties' second and subsequent NDCs, this would include information on '[h]ow the Party considers that its [NDC] is fair and ambitious in the light of its national circumstances' and how it 'has addressed Article 4, paragraph 3, of the Paris Agreement'.[135] Even before this decision, some Parties had provided such

circumstances (eg a financial/economic crisis) cannot lead to a decrease in what can be considered its "highest possible ambition" compared to the level contained in the previous NDC'. It is unclear how these two statements can be reconciled.

[133] See Mayer (n 19) 305–6.

[134] PA (n 2) art 4(8).

[135] Decision 4/CMA.1 (n 41) Annex I, para 6. The requirement is legally binding under PA (n 2) art 4(8), as indicated in Decision 4/CMA.1 (n 41) para 7. See also Decision 1/CP.21 (n 38) para 27, where a similar language is qualified with the auxiliary 'may'.

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information in their intended or first NDC.[136] Others have included similar information in national communications, biennial reports and biennial update reports communicated under the UNFCCC, as part of a broader set of information on the measures and policies that they were implementing on the mitigation of climate change.[137]

In principle, an obligation to justify compliance with the HPA standard could pressure States to ensure such compliance. Moreover, it could lead each Party to explain how it interprets its own HPA. In turn, such interpretative statements could be used to gauge the ambition of the Party's subsequent NDCs.

At present, however, the potential of State declarations as a touchstone to assess compliance with the HPA standard remains largely untapped. A review of NDCs, national communications, biennial reports and biennial update reports shows, perhaps unsurprisingly, that no Party had any difficulty finding that its NDC represented its HPA.[138] Further, this review confirms Duvic-Paoli's observation that 'states tend to self-proclaim their NDCs to be "ambitious"' without necessarily engaging in any systematic demonstration.[139] On the other hand, the review reveals that some Parties do seek to provide at least some rudimentary justification for their ambition. They allude, for instance, to 'national circumstances'[140] or, more specifically, to 'the context of [their] national analysis of mitigation potential',[141] their 'multiple initiatives'[142] or the fact that 'the mitigation actions will be undertaken domestically'.[143]

One could question whether a Party's mere assertion that its NDC reflects its HPA is enough to ensure compliance with the obligation to explain *how* the NDC reflects the Party's HPA.[144] This treaty requirement and, more broadly, the increasing domestic and international pressure on national governments to justify their level of ambition may induce States to develop more sophisticated justifications in their successive NDCs and NDC updates. This could lead States not only to elaborate increasingly sophisticated interpretations of the HPA standard, but also to specify how this standard

[136] See eg Australia, First NDC (9 November 2016) 1.

[137] See references below, nn 139–143.

[138] The review was conducted by the author through a search for every instance of the phrase 'highest possible ambition' and similar phrases in these documents, downloaded from the website of the UN climate secretariat in March 2023.

[139] Duvic-Paoli (n 12) 237. See eg Sri Lanka, First NDC, Update (30 July 2021) iii; Canada, First NDC, Update (12 July 2021) 1; Moldova, First NDC (4 March 202) 3; New Zealand, Eighth National Communication under the UNFCCC (22 December 2022) 81; Saudi Arabia, Fourth National Communication under the UNFCCC (30 March 2022) v.

[140] See eg Montenegro, First NDC, Update (15 June 2021) 14; Serbia, First NDC, Update (24 August 2022) 12.

[141] Vanuatu, First NDC, Update (9 August 2022) 48.

[142] India, First NDC (2 October 2016) 34.

[143] Malaysia, First NDC, Update (30 June 2021) 8.

[144] Decision 4/CMA.1 (n 41) Annex I, para 6, in conjunction with Decision 4/CMA.1 (n 41) para 7; PA (n 2) art 4(8).

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applies in the light of their national circumstances. In turn, these statements could provide fodder for various political and even legal processes.

2. Multilateral processes

Parties have largely opposed any role for multilateral processes under the Paris Agreement in assessing national ambition, including compliance with the HPA standard. For instance, the idea of an ex ante review of NDCs 'in the light of the ambition required', which was floated in the negotiations leading to the adoption of the Paris Agreement,[145] was dismissed in favour of an approach resolutely more deferential to national sovereignty[146] and to the 'nationally determined nature of [NDCs]'.[147] Yet the multilateral processes that Parties did agree to set up will be implemented in a changing political context. Civil society and perhaps even some States are increasingly willing to challenge individual ambition, and they may seek to exploit any potential opportunity to do so—even if this means stretching the scope of existing processes.

A process that might appear relevant, in this regard, is the global stocktake established under Article 14 of the Paris Agreement.[148] Taking place every five years, it aims at assessing progression towards the realization of the mitigation objective of the Paris Agreement.[149] However, there is no obvious opportunity in this process for questions to be raised about an individual Party's compliance with the HPA standard, if only because the process does not involve a review of Parties' individual action. Indeed, the Meeting of the Parties to the Paris Agreement decided that the global stocktake would concentrate on 'collective ambition'[150] and have 'no individual Party focus'.[151] And while the Paris Agreement calls for the outcome of the global stocktake to 'inform Parties in updating and enhancing' their NDCs, they are to do so 'in a nationally determined manner'.[152]

Another potentially relevant process is conducted by the Implementation and Compliance Committee under Article 15 of the Agreement. The Committee can consider 'issues' relating to the failure of a Party to comply with procedural obligations, including the obligation of communicating an NDC.[153] Based on

[145] See Decision 1/CP.20 (n 38) Annex, para 35. See also Decision 1/CP.20 (n 38) para 38 (proposal to establish a process 'whereby the ambition and fairness of Parties' mitigation commitments can be considered in the light of the long-term temperature limit').

[146] See R Weikmans, H van Asselt and JT Roberts, 'Transparency Requirements under the Paris Agreement and Their (Un)Likely Impact on Strengthening the Ambition of Nationally Determined Contributions (NDCs)' (2020) 20 ClimatePol 511, 521.

[147] Decision 4/CMA.4 (n 11) recital 14.

[148] See M Milkoreit and K Haapala, 'The Global Stocktake: Design Lessons for a New Review and Ambition Mechanism in the International Climate Regime' (2019) 19 IntlEnvtlAgreements: PolL&Econ 89.

[149] PA (n 2) art 14(1).

[150] Decision 19/CMA.1, 'Matters relating to Article 14 of the Paris Agreement and paragraphs 99–101 of decision 1/CP.21' (19 March 2019) UN Doc FCCC/PA/CMA/2018/3/Add.2, 53, recital 2.

[151] ibid, para 14.

[152] PA (n 2) art 14(3). See also art 4(9).

[153] Decision 20/CMA.1, 'Modalities and procedures for the effective operation of the committee to facilitate implementation and promote compliance referred to in Article 15, paragraph 2, of the

the recommendation of the technical expert review team and with the consent of the Party concerned, the Committee may also consider 'cases of significant and persistent inconsistencies' with treaty requirements relating to national reporting.[154] However, the Parties agreed that the Committee would not 'address the *content* of the contributions, communications, information and reports' themselves.[155] As such, while the Committee can play an indirect role in ensuring that Parties communicate an NDC and report on its implementation, it cannot directly review compliance with the HPA standard, or even with the procedural requirement that Parties justify 'how' their NDCs comply with the HPA standard.

The 'enhanced transparency framework' established under Article 13 of the Paris Agreement could play a more instrumental role in promoting compliance with the HPA standard. Under this framework, each Party must communicate biennial transparency reports that are to undergo a 'technical expert review' followed by a 'facilitative, multilateral consideration of progress' (FMCP).[156] Biennial transparency reports will provide relevant information that could be used to raise questions about the State's ambition during the FMCP.

In particular, a Party's biennial transparency report should include 'a description of its NDC'.[157] Although a justification of the NDC's compliance with the HPA standard is not specifically required, States have been tempted to include such justification.[158] At any rate, the report should include a description of the Party's 'national circumstances relevant to progress made in implementing and achieving its NDC'[159] and 'information on how its national circumstances affect GHG emissions and removals over time'.[160] Such circumstances and information are likely to be relevant to a State's justification of how its NDC complies with the HPA standard.

The subsequent technical expert review is not intended to assess the Party's ambition. In fact, the technical expert review team is specifically precluded from engaging in a '[r]eview of the adequacy or appropriateness of a Party's NDC' or 'of its associated description' in the biennial transparency report.[161] Nonetheless, the technical expert review will scrutinize the information reported by the Party, including the circumstances that the Party presents as relevant to its mitigation action. A technical expert review team could conceivably question whether the circumstances that the Party presents as relevant to the implementation of its NDC are, indeed, relevant, and whether

Paris Agreement' (19 March 2019) UN Doc FCCC/PA/CMA/2018/3/Add.2, 59, Annex, para 22(a). See also PA (n 2) art 15.

[154] Decision 20/CMA.1, ibid, Annex, para 22(b).

[155] ibid, para 23 (emphasis added).

[156] PA (n 2) arts 13(7), 13(11).

[157] Decision 18/CMA.1, 'Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement' (19 March 2019) UN Doc FCCC/PA/CMA/2018/3/Add.2, 18, Annex, para 64.

[158] On the inclusion of such justifications in previous reports, see Weikmans, van Asselt and Roberts (n 146).

[159] Decision 18/CMA.1 (n 157) Annex, para 59.

[160] ibid, Annex, para 60.

[161] ibid, Annex, para 149(b).

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these circumstances could really affect the Party's GHG emissions and removals in the way that the Party suggests.

In conclusion, a discussion of a Party's compliance with its HPA could take place under the FMCP. The FMCP is the only multilateral process under the Paris Agreement in which Parties discuss their individual action. Moreover, in contrast to the global stocktake, it is a loosely defined process. During this process, any Party will have the opportunity to ask questions in writing and orally to the Party whose report is under consideration.[162] A Party willing to question another Party's ambition could take advantage of this opportunity, building in particular on the description of NDC and of the national circumstances in the Party's report as reviewed by the technical expert review team.[163] The Party concerned might object to a question that it considers to fall beyond the scope of the procedure,[164] but it might also be tempted to seek to address any such challenge to its mitigation action. The record of each Party's FMCP, which will be publicly available,[165] could then be used to assess whether the Party remains consistent with its own interpretation of its HPA.

3. *Adjudication*

Adjudication provides another potential pathway for applying the HPA standard. In 2019, the Dutch Supreme Court in *Urgenda v the Netherlands* upheld a judicial determination that the national government had to achieve a 25 per cent reduction in national GHG emissions by 2020, compared with 1990, in order to comply with its due diligence obligations on climate change mitigation.[166] Similarly, in neighbouring Belgium, a court of first instance found that a national policy on climate change mitigation was unlawful because it lacked ambition;[167] the case is currently under appeal. Yet, courts in other countries have dismissed multiple cases seeking to transplant *Urgenda*, at times merely on procedural grounds,[168] but also at times on the ground that determining a State's requisite level of ambition would call for policy judgments exceeding the scope of judicial functions.[169]

More recently, challenges to States' mitigation ambition have been brought to international courts and treaty bodies. Here again, some of the first cases were dismissed on procedural grounds such as the failure to exhaust national remedies[170] or the standing of the applicant.[171] Further, the UN Human

[162] ibid, Annex, paras 192(a), 193(b).
[163] ibid, Annex, para 190.
[164] ibid, Annex, para 192(c), allowing the Party concerned to 'indicate in its response if it considers the written question to be outside the scope of a facilitative, multilateral consideration of progress', in the context of the written phase. No similar express provision applies in relation to the working group session phase.
[165] ibid, Annex, para 199.
[166] *Urgenda v the Netherlands* (n 22). See also *Milieudefensie v Royal Dutch Shell* (n 25).
[167] *Klimaatzaak v Belgium*, Tribunal of First Instance of Brussels, 4e ch., 17 June 2021.
[168] See eg Case C-565/19 P *Carvalho v Parliament and Council* ECLI:EU:C:2021:252.
[169] See references above in n 50.
[170] *Chiara Sacchi v Argentina* (n 24).
[171] See the European Court of Human Rights' summary decisions of inadmissibility in *Humane Being and Others v the United Kingdom* App No 36959/22 (ECtHR, 1 December 2022) and *Plan B*

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Rights Committee summarily dismissed a claim that Australia was failing to implement enough ambition on climate change mitigation, merely by noting that the government had an emission-reduction target.[172] In a separate opinion, Gentian Zyberi argued that the Committee should ensure that States 'set their national climate mitigation targets at the level of their highest possible ambition',[173] although he did not explain how the Committee could do this.

As of February 2024, at least nine contentious cases remain pending before the European Court of Human Rights,[174] and three other international courts—the ICJ, ITLOS and the Inter-American Court of Human Rights—have received requests for advisory opinions.[175] It is unclear how decisions in these cases could help foster ambitious action on climate change mitigation. Some might expect that these courts could devise and apply a formula to determine what constitutes a State's HPA. Doing so, however, would expose international judges to criticism of judicial overreach. Further, powerful States are unlikely to comply with such judicial pronouncements, *a fortiori* if they are taken in the form of non-binding advisory opinions.[176]

To avoid extensive reliance on policy considerations, many courts have preferred to turn to a State's own assessment of its HPA. For instance, in *Grande-Synthe v France*, France's State Council noted that a statutory emission-reduction target aimed to ensure the effective implementation of the State's due diligence obligation on climate change mitigation under the UNFCCC and the Paris Agreement.[177] Having found that the State had not

Earth and Others v the United Kingdom App No 35057/22 (ECtHR, 13 December 2022), reported in ECtHR, 'Climate Change: Cases Pending before the Grand Chamber of the Court' (Factsheet, March 2023) 4 <https://perma.cc/EQK4-VB2C>.

[172] UN Human Rights Committee, Views on Comm No 3624/2019, *Daniel Billy et al v Australia* (18 September 2023) UN Doc CCPR/C/135/D/3624/2019 (*Torres Strait Islanders Petition*) para 8.11. The Committee found, however, that the State had failed to take enough local measures to facilitate adaptation to the impacts of climate change. Litigation on adaptation action avoids many of the difficulties faced by litigation on mitigation action.

[173] Individual Opinion by Committee Member G Zyberi (concurring), *Torres Strait Islanders Petition* (n 172) para 3.

[174] See ECtHR, 'Climate Change: Cases Pending before the Grand Chamber of the Court' (n 171), mentioning three cases pending before the Grand Chamber and six other cases whose examination was adjourned pending rulings on the other cases.

[175] See *Climate Emergency and Human Rights*, Request for an Advisory Opinion to the Inter-American Court of Human Rights (9 January 2023) <https://perma.cc/56SB-R5H7>; Commission of Small Island States, *Climate Change and International Law*, Request for an Advisory Opinion to ITLOS (12 December 2022) <https://perma.cc/C72U-H82X>; UN General Assembly Res 77/276 (n 27).

[176] B Mayer, 'International Advisory Proceedings on Climate Change' (2023) 44 MichJIntlL 41; D Bodansky, 'Advisory Opinions on Climate Change: Some Preliminary Questions' (2023) 32 RECIEL 185; A Shams, 'Tempering Great Expectations: The Legitimacy Constraints and the Conflict Function of International Courts in International Climate Litigation' (2023) 32 RECIEL 193.

[177] *Grande-Synthe v France*, Decision No 427301 (1 July 2021) ECLI:FR:CECHR:2020:427301.20201119, para 13.

adopted adequate measures to achieve this statutory target, the Court ordered it to devise additional measures.[178]

Like *Grande-Synthe v France*, many successful climate litigations focused on the consistency between the State's definition of its HPA and the measures it implements, thus avoiding reliance on the court's own assessment of the State's HPA.[179] For instance, the Federal Constitutional Court of Germany in *Neubauer* found that the State's medium-term policy on climate change mitigation was inconsistent with the State's long-term aims.[180] Tellingly, when courts outside of the Netherlands have referred to the decision in *Urgenda*, they have often misconstrued it as a decision relying on a previous national policy on climate change mitigation[181]—that is, a decision that would have required the national government to remain consistent with its own mitigation policy. Such cases can complement one another to create a relatively comprehensive and effective patchwork of (mainly procedural) obligations. For instance, courts can ensure that each national government establishes an appropriate statutory or regulatory framework[182] and implements it;[183] adopts clear and coherent long-term policies[184] that do not unduly defer to future efforts;[185] updates these documents if need be;[186] and mainstreams consistent considerations in planning and project approval processes.[187]

4. *Domestic political processes*

Finally, the HPA standard can be implemented through political processes within each State. Relevant processes, which differ between countries, may include public consultations (eg in relation to the preparation of new and

[178] ibid 5–6 and art 2; *Grande-Synthe v France*, Decision No 467982 (10 May 2023) ECLI:FR:CECHR:2023:467982.20230510, art 2.

[179] See generally Mayer (n 50) 244–6.

[180] *Neubauer v Germany* (n 24).

[181] See eg *Grande-Synthe v France*, Decision No 427301 (9 November 2020) ECLI:FR:CECHR:2020:427301.20201119, 8, suggesting that the Netherlands had backtracked on a previous mitigation target. In reality, the Netherlands had advocated for an European Union-wide target, but it had not adopted the target in question as national policy. See *Urgenda v the Netherlands* (n 22) para 7.4.1.

[182] *Shrestha v Prime Minister*, Order 074-WO-0283, Decision 10210, NKP 61(3) (SC Nepal, 25 December 2018) translation <https://perma.cc/YM27-HH73>.

[183] *Massachusetts v EPA*, 549 U.S. 497 (2 April 2007); *Grande-Synthe v France* (2021) (n 177); *Notre Affaire à Tous v France*, Administrative Court of Paris, 1e ch, 14 October 2021, Decision No 1904967; *Barragán v Presidencia*, Supreme Court of Colombia, 5 April 2018, Radicación No 11001-22-03-000-2018-00319-01 (STC-4360-2018).

[184] *Friends of the Irish Environment v Ireland*, [2020] IESC 49, [2020] 2 ILRM 233.

[185] *Neubauer v Germany* (n 24).

[186] *Thomson v Minister for Climate Change Issues*, [2017] NZHC 733, [2018] 2 NZLR 160, para 94; *Plan B Earth v Secretary of State for Business* [2018] EWHC 1892 (Admin) paras 36–43.

[187] *Gray v Minister for Planning* [2006] NSWLEC 720; *Save Lamu v National Environmental Management Authority*, NET 196/2016 (26 June 2019, Kenya); *Barbone and Ross (on behalf of Stop Stansted Expansion) v Secretary of State for Transport* [2009] EWHC 463; *Center for Biological Diversity* (n 44).

updated NDCs), referendums, elections, parliamentary debates, and protests. Some States have set up dedicated forums or institutions to conduct and contain political deliberations, ranging from citizens' assemblies[188] to independent expert bodies.[189] NGOs might also play a role in debates about what a State's HPA is or how to identify it.[190]

It is noteworthy that, while domestic political processes can push for enhanced action on climate change mitigation, they can also oppose the adoption or implementation of relevant measures. For instance, a referendum initiated by Swiss citizens led to the rejection of a governmental proposal to enhance the national ambition on climate change mitigation, due in large part to concerns about the economic cost of doing so.[191] Likewise, the French '*gilets jaunes*' opposed the adoption of certain measures aimed at reducing national GHG emissions in the transportation sector.[192] Nonetheless, the inclusion of the HPA standard in the Paris Agreement provides fodder to advocates for ambitious climate action.

B. Methodologies

The judicial and political processes identified in the previous subsection may rely on different methods to assess whether a Party's NDC reflects its HPA. Among other things, these processes may involve different types of evidence or different standards of review. For instance, while national courts may be inclined to some deference towards the assessment of the State's HPA by the political branches of the government, the 'courts' of public opinion may exercise closer scrutiny through elections, referendums and protests.

In the brief discussion that follows, a distinction is drawn between two methodologies that can be used to apply the HPA standard. The first

[188] See generally LA Duvic-Paoli, 'Re-Imagining the Making of Climate Law and Policy in Citizens' Assemblies' (2022) 11(2) TEL 235. While the role of citizens' assemblies has often been limited to determining how to achieve national targets (France) or designing a long-term pathway towards carbon neutrality (United Kingdom), they could be used to assess a State's HPA.

[189] See eg Climate Change Act, 2008, c 27, s 7(1)(a) (UK), requiring the government to 'obtain, and take into account, the advice of the Committee on Climate Change' before proposing the level of a carbon budget; Law 2019-1147 of 8 November 2019 relating to energy and climate, JO 9 November 2019, No 261, art 10, establishing a 'High Council for the Climate'.

[190] See R Weikmans, H van Asselt and JT Roberts, 'Transparency Requirements under the Paris Agreement and their (Un)Likely Impact on Strengthening the Ambition of Nationally Determined Contributions (NDCs)' in WP Pauw and RJT Klein (eds), *Making Climate Action More Effective* (Routledge 2021).

[191] J Gesley, 'Switzerland: CO2 Act Amendment Rejected by Voters' (*Library of Congress*, 2021) <https://perma.cc/2H8J-FHDG>; D Soguel, 'Swiss CO2 Law Defeated at the Ballot Box' (*Swiss Politics*, 13 June 2021) < https://perma.cc/2WXZ-3TBN>.

[192] A Chrisafis, 'Who are the Gilets Jaunes and What do They Want?' (*The Guardian*, 7 December 2018) <https://perma.cc/658N-X5BW>. Many protesters claimed to oppose the method of reducing GHG emissions rather than mitigation goals per se. Yet, the transportation sector is the main source of GHG emissions in France, and it is difficult to consider how these emissions could be decreased without constraints on transportation.

methodology involves an extraneous (eg judicial) assessment of what constitutes the State's HPA. By contrast, the second methodology relies on the State's own assessment of what constitutes its HPA. Extraneous assessments can play an important role in political processes but, as they involve far-reaching value-based judgments, they are less likely to be effective in judicial proceedings. Nonetheless, an assessment of internal consistency could allow the judicial application of the HPA standard in certain circumstances.

1. Extraneous assessment

Since the *Urgenda* decision, many scholars and advocates have sought to devise tools and methods to assess States' requisite level of mitigation action. The emphasis has generally been on a top-down assessment of States' 'fair shares' in global mitigation pathways consistent with global temperature goals. However, extraneous assessments could also be conducted through a bottom-up approach relying on States' HPA. Economic, social and political studies, for instance, could seek to determine the level of effort that a State *could* implement, in the light of national circumstances.

However, the robustness of the conclusions drawn from such studies is likely to be limited, primarily due to their reliance on many, far-reaching assumptions. Some of these assumptions would relate to the standard itself, for instance the conditions under which what is 'possible' can be assessed (eg the relevance of the condition of public and political acceptance, discussed above).[193] Other assumptions would regard the application of these conditions based on national circumstances—for instance, the determination of what level of effort a society would find to be 'acceptable'. Based on such far-reaching assumptions, any two extraneous assessments of a State's HPA could reach very different conclusions. For virtually any extraneous assessment finding that an NDC falls short of Party's HPA, another extraneous assessment, relying on different assumptions, could find that the NDC complies with this HPA standard.

These observations imply that there are limited prospects for an extraneous assessment of HPA standards in the context of judicial proceedings.[194] HPA is a legal standard that could inform the judicial control of governmental action and State conduct, but it is a standard so vague that judges would probably grant extensive deference to policy judgments. Except perhaps in extreme situations—for instance, where a State fails to show any ambition whatsoever—judges are unlikely to be confident enough in the robustness of an extraneous assessment to rely on it as evidence to decide that a State's NDC falls short of the HPA standard.

[193] See text above at n 96.
[194] The same applies to the fair-share standard. See text to n 54.

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Nonetheless, extraneous assessments have a role to play in political processes. Voters, after all, do not need to defer to the political judgments of their representatives. They are not bound to comply with legal standards either, but they may be guided by such standards in assessing how their government ought to respond to climate change. Likewise, government advisors, independent expert authorities, and even citizens' assemblies can be tasked with identifying what they consider as the most convincing application of the HPA standard based on their reading of national circumstances and their opinion on what is reasonably 'possible'. The HPA standard may only provide very loose guidance to political deliberation, but no more so than the temperature goals.[195]

2. *Assessment of internal consistency*

The difficulties facing an extraneous assessment of a State's requisite level of mitigation action have led some scholars to exclude the possibility that HPA could be a justiciable legal standard.[196] Yet, an extraneous assessment is not necessary to demonstrate that a Party's NDC falls short of the Party's HPA. An alternative methodology would be to rely on the Party's own determination of what represents its HPA. A State appears to be in breach of the HPA standard when its NDC is less ambitious than what the State itself has identified as its HPA. Moreover, a Party also appears to be in breach of the HPA standard if its new NDC fails to reflect an increase in ambition commensurate with the Party's own determination that its HPA has increased, for instance due to favourable changes in national circumstances.

The potential of this methodology can be illustrated with a simple hypothetical scenario. Consider a State, called Carbonland. Before ratifying the Paris Agreement, Carbonland established the Climate Change Committee, an independent expert agency in charge of advising the government on its climate policy in line with Article 4(3) of the Paris Agreement. The Committee's initial study on the feasibility of various policy options recommended the imposition of a carbon tax whose rate would be set at Car$50 per tonne of carbon dioxide emission in 2020, and would increase by Car$5 each year, up to Car$200 in 2050. Consider that the government has endorsed and implemented this recommendation, and in its first NDC, Carbonland announced the imposition of a carbon tax at a rate reaching Car$75 by 2025.

Consider, however, that the government changes its policy: it decides that, from 2025 onward, the rate of the carbon tax will only increase by Car$1 per year. This new policy is reflected in Carbonland's second NDC, according to

[195] On the limited ability of the temperature goals to guide climate change mitigation policies, see eg DG Victor and CF Kennel, 'Climate Policy: Ditch the 2°C Warming Goal' (2014) 514 Nature 30.
[196] See eg Rehbinder (n 78).

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which the national carbon tax would reach Car$80 by 2030. The Committee does not support this policy reform—on the contrary, its successive reports purport to demonstrate that Carbonland could take advantage of favourable national circumstances to enhance its mitigation action, including with a more stringent carbon tax. It is submitted that, in such a scenario, there are strong reasons for a court to consider that the Carbonland's second NDC does not reflect its HPA and, therefore, that Carbonland probably does not comply with its due diligence obligations on climate change mitigation.

This methodology has obvious limitations. First, it can only be deployed when there is an actual inconsistency between the Party's NDC and its own HPA assessment. As such, this approach would not flag scenarios where a Party has *consistently* underestimated its HPA. Yet the methodology will progressively become more relevant as States have more opportunities to interpret their HPA. These interpretations will be developed on the international plane, through government-led processes under the Paris Agreement, including the communication of NDCs and long-term mitigation strategies.[197] However, national interpretations of a State's HPA will also be developed by national institutions such as expert authorities or citizens' assemblies.

Second, relying on internal consistency to apply the HPA standard requires evidence that the Party is not acting consistently with its own interpretation of its HPA. Yet, as noted above, there is no simple metric to measure ambition, especially when it is approached in terms of a level of effort rather than as an expected mitigation outcome.[198] The simplistic hypothetical scenario above assumes a unique and simple mitigation policy (a carbon tax). In reality, States generally rely on a far more complex toolkit of measures, some of which are not exclusively aimed at the mitigation of climate change. Moreover, this hypothetical case relies on the simplistic premise that a tax rate indicates a level of ambition of a carbon tax, whereas a tax rate says little about the economic, social and political costs of mitigation action. Rather than the straightforward quantitative analysis suggested in relation to Carbonland, the internal consistency methodology would frequently rely on a more qualitative comparison of the level of ambition reflected in the State's assessment of its HPA with that reflected in its NDC.

V. CONCLUSION

Article 4(3) of the Paris Agreement reflects an expectation that each NDC will reflect the Party's HPA. This expectation can inform the interpretation and application of due diligence obligations on climate change mitigation arising under various norms of national and international law. Admittedly, any assessment of a State's HPA is impeded by conceptual issues relating, for

[197] PA (n 2) art 4(19).

[198] See Section III.A.2.

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instance, to the various possible ways of defining what is 'possible' and an inevitable reliance on a value-based cost–benefit analysis. Nonetheless, the HPA standard can assist with clarifying the content and nature of due diligence obligations on climate change mitigation, highlighting, for instance, the relevance of Parties' capacity in assessing their requisite level of mitigation action. There could be some opportunities for applying the HPA standards through various political and judicial processes. While this article is sceptical of the ability of a court to conduct its own assessment of what constitutes a Party's HPA, it contends that a breach of the standard could be established in some circumstances based on the Party's own assessment.

Admittedly, many questions remain about the significance and applicability of the HPA standard. In the years to come, the practice of States will help answer some of these questions. In particular, as Parties are pressed to justify how their NDCs reflect their HPA, they will say more about what conditions are implied by the word 'possible' in the HPA standard and how this standard is to be articulated with the standard of progression. The implementation of multilateral processes such as the FMCP (from 2024 onward) will provide opportunities for some Parties to challenge the compliance of others with the HPA standard, thus spurring multilateral consideration of the definition of this concept. Judicial proceedings may also further explore the potential of the HPA standard to support domestic and international litigation.

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